Laurentian Vision Partnership

Meeting LXI Report

"Planning and Project Implementation 2016"

Laurentian Vision Partnership
Transforming pits and piles into lakes and landscapes

Wednesday, January 13, 2016
Mining and Reclamation Classroom I Chisholm, Minnesota
Laurentian Vision Partnership
Meeting LXI
January 13, 2016

"Planning and Project Implementation 2016"

MEETING OBJECTIVE

The Facilitator reviewed the past meeting results and next steps, highlighted meeting objectives and went over the agenda for today's meeting.

Minnesota’s Iron Range mining and community landscapes are always changing. From the advent of new processes to reclaim iron units to the development of non-ferrous and potential iron making facilities, mining’s link with the land and communities continues to evolve. As existing mining operations expand physical footprints and new facilities are constructed, the relationship between mining and community growth is of increased importance to mining operations, cities, and citizens. LVP, through a collaboration of stakeholders, addresses the challenges of community expansion, resource protection, land retention, reclamation, environmental permitting, local revenue generation, and reuse.

The focus of this meeting is on several timely topics including a global natural resource economic overview and a local/regional look at the state of mining, along with a look at the current outlook for new DRI technology applications. We will also address the importance and support for collaborative redevelopment of brownfield sites across the Iron Range and progress made over the past several years as new funding is pending. We will review and provide an update on Innovation Grant funds, new review requirements and pending project activity. Finally, we will hear progress reports from regional groups and work groups including information on new mine maps being released and available on the LVP website and a new format developed for the Large Scale Regional Projects Map.

MEETING SUMMARY

Laurentian Partnership Debriefing

- Participant introductions and expectations
- Opening comments
- Review of Meeting LX results and next steps (June 2015)
- Overview of meeting objective and agenda

PRESENTATION

Mining Outlook

Joseph Mahon
Federal Reserve Bank

Rolf Weberg
NRRI

Don Fosnacht
NRRI

Pete Clevenstine
MN DNR

This panel discussion focused on the future Minnesota's economy and more specifically on the outlook for mining bringing a statewide and regional/local perspective. Each of the three presentations is highlighted with key messages shared.

Joseph Mahon an economist with the 9th District Federal Reserve Bank in Minneapolis shared a PowerPoint presentation that discussed how Minnesota's economy is performing and shared recent forecasts for 2016 based on their surveys and modeling, and targeting the manufacturing sector. Described the various tools used and how comparisons can be made with some accuracy for a year to 18 month time period. 2016 forecast information has not been released as yet but was shared in this presentation. 2016 information was based on survey work done in November-December 2015. Several key highlights for 2016:

Modeling shows solid employment growth and a reduction in the unemployment rate compared to 2015

- Minnesota's employment forecast is expected to grow 3.2%
- District businesses remain slightly less optimistic but Mn businesses are positive
- Mn businesses anticipate moderate increases in wages and salaries with moderate price increases
- Mn personal income is expected to grow by 6.8%
- Manufacturing is expected to grow over 2015
- Home building is continuing to recover
Overall a positive outlook for 2016 in Mn

Rolf Weberg, Director of the Natural Resources Research Institute (NRRI) and Don Fosnacht, Associate Director, Technology Development shared a joint presentation. As the new Director, Rolf provided a brief overview of NRRI and its mission and vision, how it’s changing, and then focused on iron mining and the steps he views as necessary to enhance Mn Iron Mining industry. He emphasized that we need to continue to reduce mining costs while increasing iron yield; diversify the product mix and move on higher value product such as DRI or DRI grade products that can accommodate both the blast furnaces and electric arc furnaces in the market today. Share examples of how these needs can be addressed by:

- Develop more efficient processing for our mines
- Capture value from all rock that is mined
- Add value to the iron ore that is shipped
- Convert some portion of our ore to materials that are needed by EAF industry
- Take advantage of energy situation by producing direct reduced iron or other advanced metallics

Don then provided a detailed, fact filled overview of what’s been happening to the industry and why, the significant growth of EAF and what that means to our regional mining situation and the costs involved in accommodating fundamental changes; and how world iron ore supplies are changing and what imports are doing in the marketplace. He concluded by sharing how NRRI and the iron mining industry are taking steps to address these needs with new processes, technology applications, use of value added opportunities and why this can make a difference in the foreseeable future. His detailed slides will be on the LVP web site.

The third panelist, Pete Clevenstine, Assistant Director of the MDNR Division of Lands and Minerals provided an update on regional mining and how it has changed over the past three years and historically. He addressed production and value changes; how metal consumption is changing in the US; idle regional mines today and what’s happening nationally in the industry; iron ore and other metal pricing and how that has changed historically and how it sits today in light of changing demand and supplies; and concluded with an explanation of how steel imports and scrap are affecting the industry demands and pricing...soft markets for our iron ore materials.

The panel presentations, perspectives and level of detail were well received by members, and the presenters were thanked. Copies of the detailed PowerPoint slide presentations are available on the LVP website at www.lvpmn.org.

PRESENTATION

Redeveloping the Iron Range with Federal and State Brownfield Funds

Pete Kero, Barr Engineering

Pete Kero provided an overview of the Range Brownfields Initiative based on a presentation he shared at a national brownfield conference in Chicago. He was able to put into context the tie between the need for economic diversification while maintaining the land for future mining, due to the iron formation and its limitations. By reclaiming and cleanup of brownfield sites we expand the amount of land available and suitable for other development in appropriate areas. He outlined the problem we face on the Iron Range; how this project addressed the problem and its significance to growth and expansion; where we have been successful using a collaborative, regional approach involving 231 potential sites and over 15 communities. He shared a couple of examples using the Chisholm area, Virginia and Hibbing and how the boom and bust of mining historically has left these underutilized properties for redevelopment and strategic locations across the Iron Range. Addressed a number of questions on eligibility for dollars, how these funds have been used and if we will be successful in attracting additional federal and state funding.

Pete’s presentation was well received by members; a copy of the PowerPoint presentation is available on the LVP website at www.lvpmn.org.

PARTNERSHIP PRIORITIES

Regional Group Action Progress Reports

The following Regional Groups were present and provided an update on their major activities related to LVP.

<table>
<thead>
<tr>
<th>REGIONAL GROUP</th>
<th>CURRENT PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Mesabi Mine Planning Board</td>
<td>- Support and have communities involved in the Brownfields Initiative</td>
</tr>
</tbody>
</table>
There will be upgrades to Highway 169 this summer continuing to build the four lane system and address rail crossings.
- Described the captive rail issue and a coalition that has formed to address this need for Itasca County and central and east Iron Range areas
- Addressed long-term mineral resources planning and needs
- Hill Annex Park and its need for increased use and access is a priority
- Upcoming strategic planning board session and priority setting for the next 3-5 years
- No report this quarter

Shared an update on the status of construction of the new Highway 53 bridge and alignment being constructed and how work has been underway and continues thru the winter months and beyond. Cited specific progress on the causeway placement, pier pilings are half done now; crane placement and use, clearing and overburden removal happening on the eastside and referred everyone to a 24/7 web cam that is on the project web site. Things are going well with more reports to follow as the project unfolds in 2016-2017.
- Already covered by Pete Kero as part of his Brownfield Initiative presentation

**PARTNERSHIP PRIORITIES**

Work Group Action Progress Reports

Individual work group representatives provided the following reports and next steps.

<table>
<thead>
<tr>
<th>Action Areas</th>
<th>Work Group Priorities</th>
<th>Work Group Representative(s)</th>
<th>Update/Next Steps</th>
</tr>
</thead>
</table>
| **TARGETING PRIORITY PROJECTS** | FY2016 Innovation Grants budget update  
- New scoring sheet to be used by LVP Coordinating Committee  
- Conflict of Interest declaration now required by State for these grant funds  
- Mine maps use in developing project and applications for funds | Jim Plummer, IRRRB           | - FY 2016 has $200,000 available for Innovation Grants thru June 30th. There is one pending project for a mountain bike park in Chisholm. More to follow on that project  
- New scoring sheet has been developed and used for projects including declaration of conflict of interest as required by the State  
- Reminded members about the mine maps available on the LVP web site and how they can be used for project and other land use planning. These are detailed and assistance can be provided to use these tools  
- Shared analytics on use of the LVP web site. It received an average of 7-10 hits per day with spikes of 20-30 depending on user needs; all the mine maps and other tools are available and all of the presentations and notes from these meetings are available to access.  
- Shared several examples of maps available on the web site. These are all updated now.  
- The Large Scale Projects Map continues to be in demand and used. Samples were available along with the Mine Maps for use. Some changes include different color scheme and new legend for ease of use.  
- Jim is available to speak about LVP and has an updated PowerPoint presentation to share. Please contact him if interested.  
- LVP has received two awards for the Mineland Grants Field Guide and Peter Mitchell Redevelopment Plan. |
| **DELIVERING TOOLS AND RESOURCES** | 1. Mine Mapping Project Update and Soft Release on LVP Website  
2. Large Scale Projects Mapping Update (new approach(format)) | Dan Jordan, IRRRB / Tim Pastika, MnDNR |                                                                                                                                                                                                                 |
| **LVP COORDINATOR UPDATE** | 1. LVP overview presentations to area groups upon request  
2. Northshore Mine closure plan awards | Jim Plummer, IRRRB           |                                                                                                                                                                                                                 |
OTHER BUSINESS UPDATES and FUTURE TOPICS

Future Topics/Presentation Recommendations of LVP Coordinating Committee (Spring 2016)

The group discussed a number of possible discussion topics highlighted on the agenda by the Coordinating Committee. The following topics were highlighted as priorities for the May 2016 meeting, with others continuing on our list for future consideration in 2016:
• Iron Range Economic Summit – Recharge the Range
• IRRRB Strategic Plan
• Social License to Mine presentation from SME Conference – Jim Lukaszweski
• Legislative Update 2016
• New IMA President
• PolyMet Update and Next Steps
• Regional Rail Coalition - Captive Rail

COORDINATING COMMITTEE MEETING

The next Coordinating Committee will be held on Wednesday April 6, 2016 from 9:00 A.M. to Noon at the Mining and Reclamation Classroom, at Minnesota Discovery Center in Chisholm. Work Group and Regional Group representatives will be asked to assist in developing the May 2016 membership meeting agenda.

LVP QUARTERLY MEETING

The next Laurentian Vision Partnership meeting will be held on Wednesday, May 25, 2016 from 9:00 A.M. to 12:30 P.M. in the Mining and Reclamation Classroom at Minnesota Discovery Center in Chisholm.
MEETING OBJECTIVE

Minnesota's Iron Range mining and community landscapes are always changing. From the advent of new processes to reclaim iron units to the development of non-ferrous and potential iron making facilities, mining's link with the land and communities continues to evolve. As existing mining operations expand physical footprints and new facilities are constructed, the relationship between mining and community growth is of increased importance to mining operations, cities, and citizens. LVP, through a collaboration of stakeholders, addresses the challenges of community expansion, resource protection, land retention, reclamation, environmental permitting, local revenue generation, and reuse.

The focus of this meeting is on several timely topics including a global natural resource economic overview and a local/regional look at the state of mining, along with a look at the current outlook for new DRI technology applications. We will also address the importance and support for collaborative redevelopment of brownfield sites across the Iron Range and progress made over the past several years as new funding is pending. We will review and provide an update on Innovation Grant funds, new review requirements and pending project activity. Finally, we will hear progress reports from regional groups and work groups including information on new mine maps being released and available on the LVP website and a new format developed for the Large Scale Regional Projects Map.

PROPOSED AGENDA

9:00  Laurentian Partnership Debriefing
      • Participant introductions and expectations
      • Opening comments
      • Review of Meeting LX results and next steps (June 2015)
      • Overview of the meeting objective and agenda

9:15  Presentation: Mining Outlook
      • Global mining, natural resources, and the broader economy
      • Future of DRI
      • State of local mining

9:45  Break

10:55  Presentation: Re-developing the Iron Range with Federal and State Brownfield Funds

11:25  Partnership Priorities: Regional Group Action Progress Reports
      • What's happening in regional areas across the Iron Range?
        o Western Mesabi Mine Planning Board (WMMPB)
        o East Range Joint Powers Board (ERJPB)
        o Quad Cities
        o Central Iron Range Initiative (CIRI)

11:45  Partnership Priorities: Work Group Action Progress Reports
      Targeting PRIORITY PROJECTS
      • FY2016 Innovation Grants budget update
      • New scoring sheet to be used by LVP Coordinating Committee
      • Conflict of Interest declaration now required by State for these grant funds
      • Mine Maps use in developing project and applications for funds.
11:55 Partnership Priorities: Work Group Action Progress Reports

LVP Coordinator Update
- LVP Overview Presentations to area groups upon request
- Northshore Mine Closure Plan awards

Jim Plummer, IRRRB

12:05 Delivering TOOLS and RESOURCES
- Mine Mapping Project Update and Soft Release on LVP Website
- Large Scale Projects Mapping update (new approach/format)

Jim Plummer, IRRRB

Dan Jordan, IRRRB and Tim Pastika, MDNR

Facilitator

12:15 Other Business Updates and Future Topics
- Future Topics/Presentation Recommendations of LVP Coordinating Committee (Spring 2016)
  - Iron Range Economic Summit
  - IRRRB Strategic Plan
  - Social License to Mine presentation from SME Conference – Jim Lukaszweski
  - Legislative Update 2016 – TBD
- Future Topics/Presentations (Fall 2016 and beyond)
  - Future Competitiveness for Other Minerals – Global and Minnesota market/industry ties
  - Soudan Mine Water historic significance – Al Lipke
  - PolyMet project update
  - Silver Bay Black Beach Innovation Project – Lana Fralich and SEH representative
  - Iron Range Regional Planning – A regional approach to balancing immediate and long-term mining land retention needs and sustainability expectations with community growth and development needs
  - Regional environmental issues
  - Discharge Water Sulfate Concentrations and Impacts Study (MPCA Wild Rice Study)/MPCA standard application approach and implications for region
  - EPA Federal Haze Rules and Regulations and Federal Land Exchange
  - Proposed carbon rules and regulations
  - Mercury air emissions study
  - Iron ore price projections for the next 25-50 years
  - Quad Cities T.H. 53 relocation/alignment study update
  - Reclamation needs for changing stockpiles – How will reclamation needs and economic development opportunities be addressed as stockpiles are moved and reused across the Iron Range?
  - Future underground mining?
  - Alternative iron-making evolution
  - Titanium mining development – new technology
  - Cooperative Mineral Resources, an overview of a proposed ManganiFerrous Iron Ore Mining Project
  - Future Charrettes for Quad Cities/Highway 53, KeeTac, and PolyMet/East Range areas
  - New Innovation Grant project proposals and existing projects
  - Mesabi Nugget project update
  - Twin Metals project update
  - Magnetation update
  - Essar update
  - Create liaison with political representatives
    - Recognize role as forum (strategy on this); state, federal, and county levels
  - Expand the scope of our mineral focus beyond iron

Facilitator

12:25 What's Next?
- Meeting Schedule (May and October 2016)
- Next meeting date and agenda
  - Coordinating Committee – April 6, 2016 Representative from each work group and each sub-regional group
- Wrap up announcements and conclusions

12:30 Adjourn